Ahmed Maher

Senior Site Reliability Engineer — Backend Engineer

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Summary

Senior Site Reliability and Backend Engineer with 5 years of experience architecting and operating multi-cloud infrastructure, production Kubernetes clusters, and distributed backend systems across fintech and hosting environments. Experienced across AWS, GCP, and private infrastructure, with a focus on reliability, automation, observability, cloud security, infrastructure as code, and scalable system design.

Professional Experience

Gamma Assets 2025/01 – Present

Senior Senior Site Reliability *Saudi Arabia - Remote*

Gamma Assets: Regulated fintech platform specializing in blockchain tokenization of real-world assets, including real estate and industrial assets across Saudi Arabia and Turkey.

Architected and operated a multi-cloud production platform across AWS, Alibaba Cloud, and Google Cloud, supporting 50+ public endpoints, 35+ Kubernetes workloads, database clusters, and 6 environments with different regional requirements.

Designed and operated highly available Kubernetes clusters across cloud and on-prem infrastructure with standardized networking, storage, ingress, security controls, and deployment workflows.

Designed distributed microservice architectures using gRPC, SQS, Redis, DLQs, autoscaling, and OpenTelemetry to improve scalability, failure isolation, and operational reliability.

Implemented distributed tracing and centralized logging using OpenTelemetry, Tempo, Loki, and Grafana, correlating requests from API Gateway through Kubernetes workloads, application services, and blockchain RPC integrations.

Improved cloud reliability and efficiency by reducing costs 40%+ through AWS Savings Plans, workload right-sizing, capacity optimization, and cloud governance practices.

Implemented Argo CD GitOps workflows across Kubernetes environments, enabling automated reconciliation, drift detection, deployment consistency, and reliable rollback capabilities.

Built Infrastructure as Code (IaC) workflows using Terraform and CloudFormation for VPCs, subnets, routing, IAM, security groups, NAT/EIP, Kubernetes networking, DNS, and platform services.

Participated in formal on-call rotation and 24/7 production support, responding to incidents, performing RCA, improving runbooks, and driving reliability improvements across infrastructure and application teams.

Mosalam 2022/03 – 2025/01

DevOps Engineer *United Kingdom - Remote*

Mosalam: IT solutions and cloud infrastructure provider delivering hosting, VPS, managed services, security, and custom technology solutions for businesses worldwide.

Architected and operated a private-cloud Kubernetes platform on Proxmox and Hetzner, running highly available RKE2 clusters across separate failure domains with dedicated control and workload networks.

Designed Kubernetes networking using Cilium eBPF native routing without VXLAN overlays, implementing explicit pod routing across private Layer-2 networks for improved performance and network visibility.

Implemented highly available persistent storage using Rook Ceph with replicated storage clusters for stateful Kubernetes workloads.

Automated infrastructure provisioning, application deployments, and operational workflows using Terraform, Ansible, Python, and Bash, reducing manual operations and improving deployment consistency.

Built monitoring, alerting, backup, and disaster recovery workflows using Prometheus, Grafana, and automated operational tooling to improve platform reliability.

Developed FastAPI services and automation integrated with Hetzner APIs to automate SaaS provisioning, DNS management, Kubernetes/Docker deployments, and environment configuration.

Technical Skills

Cloud & Infrastructure: AWS (VPC, IAM, Route 53, CloudFront, EC2, EKS, RDS, S3, Lambda, CloudWatch, KMS, Organizations and Cloud Governance, Google Cloud Platform (GCP), Alibaba Cloud, Terraform, CloudFormation, Proxmox, Ceph, ZFS, DNS, High Availability, Disaster Recovery, Cost Optimization

Kubernetes & Platform Engineering: Kubernetes, RKE2, Docker, Helm, GitOps, Argo CD, Argo Rollouts, Istio, Cilium, Gateway API

CI/CD & Automation: GitLab CI/CD, GitHub Actions, Ansible, Bash, Python, Infrastructure Automation

Reliability & Operations: Incident Response, RCA, Cloud Governance, Monitoring, Alerting, Production Support

Observability: OpenTelemetry, Prometheus, Grafana, Loki, Tempo, Distributed Tracing, Logging

Backend & Distributed Systems: NestJS, TypeScript, FastAPI, gRPC, Microservices, Distributed Systems, System Design, Redis, Kafka, SQS

Projects

Air-Gapped AI Gateway Platform github.com/maher-elattar/airgapped-ai-gateway-k8s
Kubernetes AI Infrastructure Project *AgentGateway, Envoy, NVIDIA NIM, Argo CD*

- Built a secure AI gateway architecture for air-gapped Kubernetes environments using Gateway API, AgentGateway/Envoy, NVIDIA NIM, GitOps delivery, authentication, authorization, and controlled model access.
- Implemented Kubernetes-native deployment workflows using Argo CD, security controls, and reproducible infrastructure patterns for restricted environments.
- Documented the architecture and implementation through technical articles: Air-Gapped AI Gateway on Kubernetes with AgentGateway, Envoy, and NVIDIA NIM.

Highly Available RKE2 Kubernetes Cluster github.com/maher-elattar/rke2-private-cloud-platform
Private Cloud Kubernetes Platform *RKE2, Cilium eBPF, Rook Ceph, Gateway API*

- Designed and built a private-cloud Kubernetes platform on Proxmox using RKE2, Cilium eBPF native routing without VXLAN, distributed storage, automated TLS, private networking, and separate networks and failure domains.
- Architected a highly available multi-node Kubernetes cluster with dedicated control, workload, and storage networks, focusing on fault tolerance, network performance, and operational reliability.
- Implemented distributed persistent storage using Rook Ceph with replicated storage clusters to provide reliable storage for stateful Kubernetes workloads.
- Documented the architecture and implementation through technical articles: Part 1: RKE2 + Cilium eBPF Native Routing and Part 2: Gateway API + Distributed Storage.

Education

Master's Degree in Software Engineering
Faculty of Computer Science & AI, Helwan University *2025 – Present*

Graduate Diploma in Software Engineering
Faculty of Computer Science & AI, Helwan University *2024 – 2025*

Bachelor's Degree in Management Information Systems
Business Administration English Section *2019 – 2023*

Certifications

AWS Certified Solutions Architect – Professional

AWS Certified Solutions Architect – Associate

AWS Certified Cloud Practitioner

Languages

English (Fluent), Arabic (Native)